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Mandatory Ship Reporting System and Other Right Whale Recovery Efforts

By Gregory Silber and Lindy Johnson

One of the most perplexing problems facing marine mammal conservation is the dilemma of the northern right whale (*Eubalaena glacialis*). Severely depleted by commercial whaling, right whales in the North Atlantic and North Pacific oceans occur in low numbers and show little or no indication of recovery. Only about 300 right whales occur in the North Atlantic and an unknown, but likely similarly small, number exist in the North Pacific. Recent assessments by the International Whaling Commission's Scientific Committee and independent scientists suggest that the size of the North Atlantic population is not growing and may be in decline.

The reasons for the lack of growth are unclear, but due to mostly coastal distributions, right whales are almost certainly affected adversely by human activities. They occur along the United States and Canadian eastern seaboard and, at times, aggregate in or near major shipping channels. Collisions with ships are a major cause of death and serious injury in right whales and have accounted for at least six North Atlantic right whale deaths in the last six years, and at least 15 since 1970. The actual number is probably higher because not all carcasses are recovered.

Recognizing that ship strikes are likely a major impediment to right whale recovery, the National Oceanic and Atmospheric Administration (NOAA) initiated a program aimed at reducing the likelihood of such occurrences. Much of the program is aimed at increasing mariners' awareness of the severity of the problem and to seek their help in minimizing the threat. One cornerstone of the program is a mandatory ship reporting system. Starting in July, 1999, all commercial ships over 300 tons that enter right whale aggregation areas will be required to report to a shore-based station. The program will have two components: a reporting system operating off Massachusetts year round, and one off Georgia and Florida each year from 15 November to 15 April, corresponding with periods of right whale occurrence.

Ships will be required to indicate their course, speed, location, destination, and route. In return, ships will receive an automated message indicating that the ship is entering right whale habitat, that whales are likely to be in the area, and that ship strikes are a serious threat to whales and may cause damage to the ship. The message will also indicate to mariners where they can receive the most recent information on right whale locations, and if possible and when available, recent sighting information will be provided in the return message. The system requires reporting only and will affect no other aspect of vessel operation; there will be no cost to the mariner. Commercially sensitive information will be kept confidential.

The return message will also contain advice on precautionary measures that mariners may take to reduce the possibility of hitting right whales. For example, mariners will be advised to refer to navigational publications such as the U.S. Coast Pilot, Sailing Directions, and nautical charts for information on relevant regulations, and the boundaries of national marine sanctuaries and right whale critical habitat. They will be advised to obtain information about the location of whales in their vicinity by monitoring various broadcast media, including the U.S. Coast Guard's (USCG) Broadcasts to Mariners, satellite-linked marine safety broadcasts, and NOAA Weather Radio. Right

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National Marine Fisheries Service, Office of Protected Resources

whale location information is obtained from aircraft surveys supported by the U.S. Navy, USCG, Army Corps of Engineers, the National Marine Fisheries Service (NMFS), and the states of Massachusetts, Georgia, and Florida. In addition, mariners will further be advised that information placards, videos, and other educational materials are available from shipping agents, port authorities, relevant state agencies, the USCG, and NMFS.

Collisions with ships are a major cause of death and serious injury in right whales and have accounted for at least six North Atlantic right whale deaths in the last six years, and at least 15 since 1970.

Contact with the shore station will be mediated via INMARSAT, a satellite-based, ship-to-shore communication system. Ships not equipped with INMARSAT (an estimated 5% of all commercial ships over 300 tons) should contact the USCG by HF radio, which will, in turn, provide the return message described above. Specific reporting instructions will be provided by the USCG as the system is implemented.

Collectively, the reports will yield data on ship numbers and routes in right whale habitat, which will be useful in identifying possible further measures to reduce ship/whale interactions. The entire program will be reviewed in three to five years to assess its effectiveness, and to introduce advances in ship communication technologies that have become available.

The proposal for the system was submitted to the International Maritime Organization (IMO) – a specialized agency of the United Nations that provides the forum for countries to address international shipping issues. The proposal received unanimous IMO approval in December, 1998, with an implementation date by July, 1999. The concept and design of the system was initiated by the NOAA, NMFS, and USCG, with significant input from the International Fund for Animal Welfare and the Marine Mammal Commission, and with strong backing from Congressmen William Delahunt (D-MA) and Wayne Gilchrist (R-MD).

NMFS has taken a number of other steps to reduce ship strikes. For example, in 1994, NMFS designated three right whale feeding and nursery areas along the U.S. East Coast as "critical habitats." Other areas important to right whale protection have also been established by the United States and Canada, including the Gerry E. Studds Stellwagen Bank National Marine Sanctuary off Massachusetts and a whale conservation area in the Bay of Fundy, Canada. In 1997, NMFS issued regulations requiring boats and aircraft to stay a minimum of 500 yards (460 m) from right whales.

In the northeastern and southeastern United States, NMFS established teams composed of representatives of government agencies, the maritime industry, and the scientific community to coordinate right whale protective measures. Among other things, these teams have coordinated the right whale aircraft survey programs. Surveys are conducted off the southeastern United States from December to March (the peak calving period), and whale sightings are broadcast to all vessels in the area by the U.S. Navy. In the northeastern United States, whale advisories and sightings are broadcast periodically by NMFS, and maps of right whale sightings are posted on the Internet by the Massachusetts Office of Environmental Affairs and NMFS (http://whale.wheelock.edu).

Because their activities can also affect whales, the USCG and Navy have modified their operations in U.S. waters. When possible, their boats avoid or minimize their time in right whale aggregation areas. Both agencies participate in the regional recovery teams and are strong components of the survey and sighting networks. NMFS provides advice on boat activities conducted by these and other federal agencies through a consultation provision of the Endangered Species Act.

With significant input and advice from the International Fund for Animal Welfare, the regional recovery teams, and the Marine Mammal Commission, NOAA and NMFS staff have worked in the last year to ensure that information on right whales in relevant navigational publications is timely and accurate. In addition, through external contractors, NMFS is making assessments of right whale habitat use relative to ship traffic patterns, and is initiating dialog with the shipping industry to identify voluntary measures that mariners can take to avoid striking a right whale.

The status of the North Atlantic right whale is grave, and much work is needed to reduce the adverse effects of human activities. It is hoped that the ship reporting system, in conjunction with other measures, will reduce these threats and allow the severely depleted species to recover.

For additional information about the Mandatory Ship Reporting System and other Large Whale Recovery Activities, please contact Gregory Silber at (301) 713-2322.

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Office Director: Hilda Diaz-Soltero
Deputy Office Director: Art Jeffers
Editors: Nicole R. Le Boeuf, Trevor Spradlin, and Vicki Cornish
Featured Artist: Katherine Zecca

The Importance of Post-Release Monitoring

The rehabilitation of a marine mammal cannot be called a true success if the animal doesn't survive the transition back into the wild. Thus, it is critical that post-release monitoring be conducted for animals that have undergone rehabilitation and have been returned to their natural habitat. Stranding facilities around the country have employed various methodologies to determine whether or not released animals have re-established their natural patterns of behavior. The most inexpensive way to monitor animals is to apply some type of mark (i.e., a freeze-branded or bleached number) or a tag on their bodies, so that they can be identified at sea or if they restrand. However, much more information about the life of animals in the wild can be captured with the use of satellite linked time depth recorders (STDRs). Data retrieved from these devices can reveal much about the movements, foraging strategies, and overall health of animals.

The New England Aquarium (NEA) in Boston, MA, is one of several facilities familiar with satellite tracking of rehabilitated animals. In the last two years, NEA has used STDRs to monitor the movements and behavior of thirteen rehabilitated seals, ranging in age and size from an adult hooded seal (600 lbs) to young-of-the-year harbor seals (80 lbs). These devices were programmed to transmit dive depth, duration and time at depth, and data on location were received. The effectiveness of tracking and the amount of data returned from the tag depends on the animals' time at the surface, placement of the tag, and location. Since these tags log and store the data in memory, retrieved tags can provide a complete picture of the animal's re-acclimation to the wild.

The 13 seals were tracked by NEA for between 25 to 275 days. Preliminary data indicate that three of the thirteen seals most likely did not survive. The dive patterns of the seals that don't survive appear less complex with predominantly shallow, short dives. The different species have shown a wide range of scale of movements: local movements of several hundred miles (harbor seals), mid-range movements of several thousand miles (gray seals), and large-scale movements of tens of thousands of miles (hooded seals). Dive behavior also differs greatly between species.

Each year, in the Northeast United States alone, roughly 30-50 seals are released after rehabilitation. Ideally, all of the released animals should be monitored to determine 1) survivorship of stranded and rehabilitated seals, 2) movements and dive patterns of released seals, and 3) the ability of rehabilitated seals to re-integrate into the wild. However, due to the significant expense (~$5000 per tag), not all are outfitted with satellite tags.

Satellite tracking of animals can answer basic questions about rehabilitation success or failure and provide additional information about distribution and habitat use of seals. This information can be used to support future rehabilitation efforts and for monitoring habitat use and ecosystem changes. A well-coordinated tagging program would be a "quality control" for release efforts, and could be used to evaluate and modify release, transport and rehabilitation procedures. Information collected from the tags, along with proper health evaluations upon entry to and exit from the rehabilitation facility, as well as blood results, treatments, and length of time of rehabilitation will all help to paint a clearer picture of the overall success of a release.

In addition to NEA, many other marine mammal stranding facilities use post-release monitoring to assist them in gauging the success of their rehabilitation efforts. Mote Marine Laboratory in Sarasota, FL (see *MMPA Bulletin* Issue No. 12, "Update on Mass Stranding of Rough-Toothed Dolphins"), the Marine Mammal Center in Sausalito, CA, and many others have found that post-release monitoring, whether through simple identification tags or high technology satellite tracking, are invaluable sources of evaluation for their rehabilitation programs and techniques.

Marine Mammals Ashore CD-ROM

Through a cooperative effort between the NMFS Office of Protected Resources, National Ocean Service's Office of Ocean Resources Conservation and Assessment, and the National Aquarium in Baltimore, *Marine Mammals Ashore: A Field Guide for Strandings* by Geraci and Lounsbury has been adapted into a CD-ROM format. The CD-ROM includes the entire original publication in PDF, as well as updated information, stranding forms, and a multimedia overview including interactive discussions by marine mammal experts from around the world. The CD-ROM is compatible with most PC and Macintosh computers.

Marine Mammals Ashore: A Field Guide for Strandings was originally published in 1993 as one of the most comprehensive guides for marine mammal stranding response and rehabilitation ever compiled. Since its initial publication, this field guide has provided countless numbers of marine mammal rehabilitators and scientists around the world with information vital to successful response, rehabilitation, and release of marine mammals.

To purchase this CD-ROM, please contact Valerie Lounsbury at the National Aquarium in Baltimore by e-mail at: vlounsbury@aqua.org or by mail at: Pier 3, 501 East Pratt Street, Baltimore, MD 21202-3194. You can also purchase the CD-ROM online at: **www.aqua.org/animals/conservation/cdrom.html**

The 1999 List of Fisheries

Section 118 of the MMPA requires that NMFS publish an annual list that places all U.S. commercial fisheries into Category I, II, or III based on their frequency of incidental mortality or serious injury of marine mammals, with Category I having the highest.

All Category I and II fisheries are required not only to register, but to carry an observer if requested by NMFS. However, participants in Category III fisheries do not have to register with NMFS. All fishers, regardless of the category of their fishery, must report all injuries and mortalities of marine mammals that occur incidental to their fishing operations within 48 hours of returning to port (50 CFR 229.6).

The 1999 List of Fisheries was published in the *Federal Register* on February 24, 1999. The table below shows those fisheries classified in Categories I and II in the 1999 List of Fisheries.

Fishery Description	Estimated # of vessels or persons	Marine mammal species or stocks incidentally injured/killed	
Atlantic Ocean, Gulf of Mexico, and Caribbean Fisheries			
Category I			
Atlantic Ocean, Caribbean, Gulf of Mexico large pelagics drift gillnet	15	North Atlantic right whale Sperm whale Cuvier's beaked whale True's beaked whale Blainville's beaked whale Long-finned pilot whale Atlantic white-sided dolphin Atlantic spotted dolphin Striped dolphin Bottlenose dolphin	Humpback whale Dwarf sperm whale Harbor porpoise Gervais' beaked whale Risso's dolphin Short-finned pilot whale Common dolphin Pantropical spotted dolphin Spinner dolphin
Northeast sink gillnet	341	North Atlantic right whale Minke whale Atlantic white-sided dolphin Bottlenose dolphin Harbor seal Common dolphin Spotted dolphin Harp seal	Humpback whale Killer whale Striped dolphin Harbor porpoise Gray seal Fin whale False killer whale
Atlantic Ocean, Caribbean, Gulf of Mexico large pelagics longline	361	Humpback whale Risso's dolphin Short-finned pilot whale Atlantic spotted dolphin Striped dolphin Harbor porpoise	Minke whale Long-finned pilot whale Common dolphin Pantropical spotted dolphin Bottlenose dolphin
Gulf of Maine, U.S. mid-Atlantic lobster trap/pot	13,000	North Atlantic right whale Fin whale Atlantic white-sided dolphin	Humpback whale Minke whale Harbor seal
Category II			
U.S. mid-Atlantic coastal gillnet	>655	Humpback whale Minke whale	Bottlenose dolphin Harbor porpoise
Gulf of Maine small pelagics surface gillnet	133	Humpback whale Harbor seal	Atlantic white-sided dolphin
Southeastern U.S. Atlantic shark gillnet	12	Bottlenose dolphin	North Atlantic right whale
Atlantic squid, mackerel, butterfish trawl	620	Common dolphin Long-and short-finned pilot whales	Risso's dolphin Atlantic white-sided dolphin
Atlantic herring midwater trawl (including pair trawl)	17	None documented	
Mid-Atlantic haul seine	25	Bottlenose dolphin	Harbor porpoise
Gulf of Mexico menhaden purse seine	50	Bottlenose dolphin	
North Carolina roe mullet stop net	13	Bottlenose dolphin	

Fishery Description	Estimated # of vessels or persons	Marine mammal species or stocks incidentally injured/killed	
Pacific Ocean Fisheries			
Category I:			
CA angel shark/halibut and other species large mesh (>3.5in) set gillnet	58	Harbor porpoise California sea lion Northern elephant seal	Common dolphin Harbor seal Sea otter
CA/OR thresher shark/swordfish drift gillnet	130	Steller sea lion Dall's porpoise Risso's dolphin Common dolphin Short-finned pilot whale Mesoplodont beaked whales Pygmy sperm whale Northern elephant seal Minke whale Northern fur seal	Sperm whale Pacific white-sided dolphin Bottlenose dolphin Northern right whale dolphin Baird's beaked whale Cuvier's beaked whale California sea lion Humpback whale Striped dolphin Killer whale
Category II:			
AK Prince William Sound salmon drift gillnet	509	Steller sea lion Harbor seal Harbor porpoise	Northern fur seal Pacific white-sided dolphin Dall's porpoise
AK Peninsula/Aleutian Islands salmon drift gillnet	163	Northern fur seal Harbor porpoise	Harbor seal Dall's porpoise
AK Peninsula/Aleutian Islands salmon set gillnet	110	Steller sea lion	Harbor porpoise
Southeast Alaska salmon drift gillnet	439	Steller sea lion Pacific white-sided dolphin Dall's porpoise	Harbor seal Harbor porpoise Humpback whale
AK Cook Inlet salmon drift gillnet	560	Steller sea lion Harbor porpoise Beluga	Harbor seal Dall's porpoise
AK Cook Inlet salmon set gillnet	604	Steller sea lion Harbor porpoise Dall's porpoise	Harbor seal Beluga
AK Yakutat salmon set gillnet	139	Harbor seal	Gray whale
AK Kodiak salmon set gillnet	172	Harbor seal Sea otter	Harbor porpoise
AK Bristol Bay salmon drift gillnet	1,884	Steller sea lion Harbor seal Gray whale Pacific white-sided dolphin	Northern fur seal Beluga Spotted seal
AK Bristol Bay salmon set gillnet	941	Harbor seal Gray whale Spotted seal	Beluga Northern fur seal
AK Metlakatla/Annette Island salmon drift gillnet	60	None documented	
WA Puget Sound Region salmon drift gillnet (Treaty Indian fishing excluded)	725	Harbor porpoise Harbor seal	Dall's porpoise
AK Southeast salmon purse seine	357	Humpback whale	
CA anchovy, mackerel, tuna purse seine	150	Bottlenose dolphin Harbor seal	California sea lion
CA squid purse seine	65	Short-finned pilot whale	
AK misc. finfish pair trawl	4	None documented	
OR swordfish floating longline	2	None documented	
OR blue shark floating longline	1	None documented	

NMFS Conducts Status Review of Cook Inlet Beluga Whales

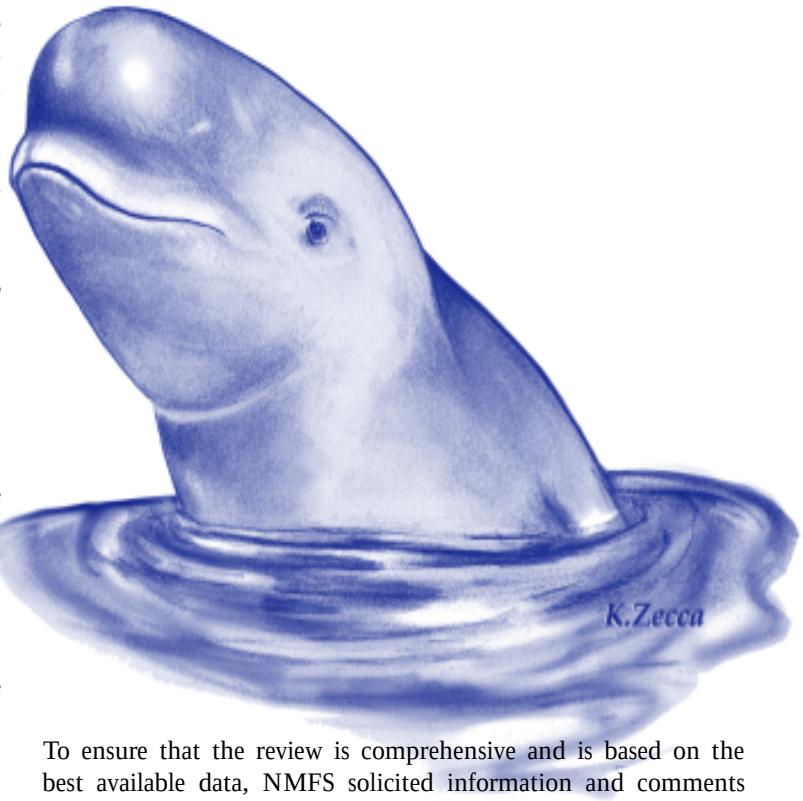
NMFS, in conjunction with the Alaska Beluga Whale Committee and the Cook Inlet Marine Mammal Council, conducted a status review of Cook Inlet beluga whales *(Delphinapterus leucas)* to determine whether designation under the MMPA or a change in listing classification under the Endangered Species Act (ESA) is warranted. Currently, the Cook Inlet beluga whale is considered a "candidate" species under the ESA. A candidate species is one for which there is concern that conditions may warrant an ESA threatened or endangered listing in the foreseeable future. A formal status review is conducted if NMFS determines that there is substantial scientific or commercial information to indicate that a change in listing classification for a candidate species may be warranted.

The Cook Inlet belugas make up a small, geographically isolated remnant population of whales. The Cook Inlet population of beluga whales is separated from other beluga populations by the Alaska Peninsula and seems to concentrate near river mouths in the northern part of the inlet during the summer. Despite being geographically and genetically isolated from other beluga populations for possibly thousands of years, the remaining Cook Inlet belugas appear to have maintained a relatively high level of genetic diversity, leading researchers to believe that this population of animals remains viable.

Unfortunately, the geographic isolation of these whales, in combination with their tendency towards site fidelity, makes them vulnerable. Impacts include subsistence harvest by Alaska Natives and anthropogenic, environmental hazards such as oil and gas development, commercial and sport fisheries, increased vessel traffic, and Municipal sewage outfall from an increasing urban (Anchorage) population. Based on its current estimated rates of maximum net recruitment and Native harvest levels, NMFS and others are concerned that the beluga population in Cook Inlet cannot sustain itself by annual recruitment for much longer. Specifically, there is concern that Native subsistence harvests are exceeding sustainable removal levels and if continued at the present rate could cause this stock to become extinct within ten years.

Historical estimates are not available, but Native hunters have stated their belief that the population numbered at least 1,000 animals as recently as the 1980s. Research by the NMFS National Marine Mammal Laboratory has also indicated a diminished distribution of belugas in Cook Inlet over the last two decades. NMFS' systematic surveys of belugas in Cook Inlet, which have been conducted annually from 1994 through 1998, suggest a decline in estimated abundance, with the 1998 estimate (347) nearly 50% lower than the 1994 estimate (653).

Because of these concerns, NMFS conducted a status review of the Cook Inlet stock of beluga whales that considered their distribution, abundance and trends, food habits, as well as overall health, and reproductive parameters. In addition, the effects of the Native subsistence harvest and the potential effects of other human-induced impacts on natural mortality was examined.



To ensure that the review is comprehensive and is based on the best available data, NMFS solicited information and comments from all persons concerned with the status of Cook Inlet beluga whales. This public comment period lasted from November 19, 1998 to January 19, 1999. During this comment period, NMFS received recommendations to act immediately to protect Cook Inlet beluga whales through a variety of mechanisms. Most commenters suggested an emergency listing of Cook Inlet belugas under the ESA or a "depleted" designation under the MMPA. Commenters also recommended that NMFS restrict or limit the harvest of Cook Inlet belugas and ban the commercial sale of beluga meat. Another comment expressed support for a co-management agreement as a tool to address over-hunting and a way to permanently complement stringent ESA and/or MMPA protective measures. In addition, recommendations included a temporary moratorium on future harvesting and tagging/reporting of belugas. NMFS also received petitions to do an emergency ESA listing concurrent with critical habitat designation and promulgation of regulations, to designate Cook Inlet belugas as depleted under the MMPA, or to designate them as depleted under the MMPA *and* as endangered under the ESA.

As another step to include stakeholders in this process, NMFS invited the public to attend and contribute to a status review meeting, held on March 8-9, 1999, in Anchorage, Alaska. NMFS presented the preliminary findings of the status review and will now begin to determine if protection under either the MMPA or the ESA is warranted. NMFS is working toward resolution on the issues that threaten the sustainability of this population and expects to reach some level of management resolution by the summer of 1999.

For additional information about the Cook Inlet beluga whale status review, please contact Brad Smith at (907) 271-3023 or Margot Bohan at (301) 713-2322.

Safeguarding Hawaiian Monk Seals From the Threat of Plastic Debris

Every year, NMFS Marine Mammal Research Program (MMRP) personnel observe staggering amounts of marine debris wash ashore on the isolated beaches of the Northwestern Hawaiian Islands (NWHI). The NWHI extend some 1,200 miles west from Kauai, and encompass the entire breeding range for the critically endangered Hawaiian monk seals *(Monachus schauinslandi)*. On these remote shores, monk seals come to rest on literally tons of glass bottles, plastic and Styrofoam fishing floats, old shoes, plastic bags, and other refuse. Perhaps most dangerous of all are the tons of derelict fishing nets that snag on the coral reefs or wash up on the beaches to make deadly traps for the curious Hawaiian monk seal. The fishing nets are made primarily of nylon and polypropylene materials. These types of nets are strictly prohibited from being discarded by the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). Despite this fact, they continue to accumulate at an alarming rate.

In 1998 alone, there were 17 monk seal entanglements resulting in five injuries and one death. These figures are even more somber considering that they include only those entangled animals that managed to drag themselves ashore during the three to five months that MMRP researchers are onsite to record the event. It is not known how many entangled seals come ashore during the rest of the year, or are drowned in the water and never make it back to shore. Whatever the actual number is, to a population of less than 1,200 with island subpopulations seldom exceeding a few hundred, the premature death of even a single seal is significant.

In 1996, the MMRP began an innovative Marine Debris Cleanup Program to mitigate the impact of marine debris on the NWHI monk seal population. Using divers towed behind small boats, researchers surveyed and removed 64 derelict fishing nets from just over a half km^2 of monk seal foraging habitat at French Frigate Shoals. MMRP personnel estimate that there are an average of 94 nets per km^2 which could mean as many as 38,000 nets within nearshore habitat at French Frigate Shoals alone. A later study at Pearl and Hermes Reef found 123 nets per km^2 with an average of four kg of dead coral in each. In addition to monk seals, a large variety of dead corals, sea birds, shark teeth, and dolphin and turtle bones have been found entangled in abandoned fishing gear, illustrating the nets' deadly impact on a whole host of marine life.

In 1998, marine debris assessment and remediation was completed in nearly 14 km^2 of reef and nearshore habitat. MMRP personnel continued efforts to survey and remove derelict fishing nets and were assisted by the following offices or programs: U.S. Coast Guard, U.S. Navy, U.S. Fish and Wildlife Service, Office of NOAA Corps Operations, University of Hawaii Sea Grant, University of Alaska Sea Grant, University of Hawaii, City and County of Honolulu, Center for Marine Conservation, Hawaii Wildlife Fund, Hawaii Coastal Zone Management Program, NET Systems Inc., and BFI Inc. At the end of the 29-day effort, approximately 7,500 kg of debris had been removed, yet the area covered was less than 5% of the nearshore habitat at French Frigate Shoals, leaving much work still to be done.

The success of the MMRP projects has spurred similar cleanup projects within the main Hawaiian Islands. Additional efforts to survey and clean up the remaining areas at French Frigate Shoals, Pearl and Hermes Reef, and the as yet uncleared islands of the NWHI are ongoing. MMRP personnel attempt to rescue any entangled animals they observe, but the ultimate solution lies in prevention. No amount of cleanup today can prevent a net from washing ashore and entangling a seal tomorrow.

For additional information about the Marine Debris Cleanup Program or Hawaiian monk seal conservation, please contact Bud Antonellis at (808) 983-5710 or Margot Bohan at (301) 713-2322.

NMFS Amends the Pacific Offshore Cetacean Take Reduction Plan

NMFS published a final rule requiring workshops, the use of pingers, and nets deployed below six fathoms of water for vessels in the California/Oregon drift gillnet fishery for thresher shark and swordfish on October 3, 1997. This measure was taken to reduce the mortality and serious injury of several marine mammal stocks that occur incidental to fishing operations. The final rule required pingers to be used on all vessels in the CA/OR DGN fishery during every set (as reported in the *MMPA Bulletin* issue No. 12: "Bycatch Reduction Strategies Successful in the Pacific") Pingers were required to be attached on or near the floatline and on or near the leadline and spaced no more than 300 feet apart. They were also required to be attached within three feet of the floatline and within six feet of the leadline.

Representatives of this fishery and drift gillnet fishers reported that allowing pingers to be deployed farther away from the net could facilitate more efficient (faster) and safer deployment of pingers. At its June 1998 meeting, the Pacific Offshore Cetacean Take Reduction Team recommended that the final rule should be amended to allow pingers to be attached further away from the net in order to increase the safety of pinger deployment.

In response to fishers' concerns, NMFS published an interim final rule on January 22, 1999, allowing pingers to be deployed further away from the net. Specifially, the interim final rule requires that pingers be attached within 30 feet of the floatline and within 36 feet of the leadline. This rule will relieve a restriction and increase the safety of fishers complying with the Pacific Offshore Cetacean Take Reduction Plan regulation, but will not diminish the efficacy of pingers at reducing cetacean bycatch in the fishery.

The interim final rule was published in the *Federal Register* on January 22, 1999. The changes to the PCTRP regulations became effective on January 22, but NMFS accepted comments on them until February 22, 1999.

For additional information on the Pacific Offshore Cetacean Take Reduction Team, please call Irma Lagomarsino at the NMFS Southwest Region at (562) 980-4016.

NMFS Submits Recommendations to Congress on West Coast Pinniped Issues

On February 10, 1999, NMFS submitted a *Report to Congress: Impacts of California Sea Lions and Pacific Harbor Seals on Salmonids and West Coast Ecosystems* to the House of Representatives Committee on Resources and to the Senate Committee on Commerce, Science, and Transportation in accordance with Section 120 of the MMPA. This report, which was mandated by Congress in the 1994 Amendments to the MMPA, addresses the effects of rising West Coast pinniped populations on declining salmon stocks and interactions with humans, and contains recommendations on how to deal with these events. NMFS compiled this report with the assistance and concurrence of the Pacific States Marine Fisheries Commission and the fish and wildlife agencies of California, Washington and Oregon.

Under protection of the MMPA, some pinniped species, such as California sea lions and Pacific harbor seals, have increased in number so rapidly that there are now frequent and serious conflicts between them and humans coast wide. These populations have grown at an annual rate of about 5-7%, tripling their numbers since the 1970s. These rapidly growing pinniped populations can have a negative impact on salmonid stocks, especially those listed or proposed to be listed under the Endangered Species Act.

There is a wide variety of factors, including habitat degradation, dams, fishing and competition from hatchery salmon, that are responsible for the declines in salmon populations. Although seals and sea lions are not the cause for decline of most salmon populations, these pinnipeds are known to eat depressed stocks of salmon and steelhead, especially at areas of restricted passage like river mouths and dams. This can prevent or delay recovery of declining fish populations.

In the report, NMFS recommends applying a conservative principle in natural resource management, favoring the resource most in need of protection when information is uncertain. The report says in certain situations where seals or sea lions are preying on salmonids listed or about to be listed under the ESA, state and federal wildlife managers should be permitted to lethally remove them under strict federal guidelines and as a last resort. It recommends that, in cases where seals or sea lions are causing repeated, serious conflicts with human activity at locations such as fishing grounds or marinas, State or Federal managers should be authorized to lethally remove identified problem marine mammals if individual animals fail to respond to repeated deterrence attempts.

Other recommendations include developing safe and effective deterrents so that lethal removal of problem animals is a seldom-used option. The report also recommends that Congress consider reinstating the authority, removed from the MMPA in 1994, that allows a fisher to lethally remove a seal or sea lion to protect the catch or gear if the animal cannot be otherwise deterred. This authority would only apply to certain fishers at specific sites and seasons, and only until effective non-lethal means to deter seals and sea lions can be developed. Finally, the report describes the need for further research on pinniped-salmonid interactions.

For more information about the Report to Congress, please contact Joe Scordino at (206) 526-6143. This report and other supporting documents are also available online at the NMFS Northwest Region office's webpage at: **www.nwr.noaa.gov/1seals/Seal01.htm**

Take Reduction Plan for Gulf of Maine and the Mid-Atlantic Harbor Porpoise Published

Working closely with gillnetters and with environmental advocates over the past several years, NMFS developed the Harbor Porpoise Take Reduction Plan (HPTRP). The plan was published as a final rule in the *Federal Register* on December 2, 1998. This rule addresses harbor porpoise bycatch in both the Gulf of Maine and the Mid-Atlantic coastal waters.

Measures within the HPTRP are expected to prevent more than 1,600 of the nearly 2,000 annual harbor porpoise deaths currently caused by gillnet fishing in these areas. This would reduce harbor porpoise entanglement to approximately 300 animals per year in the Gulf of Maine and fewer than 50 deaths in the Mid-Atlantic. The goal of each TRP is to reduce takes to below wach stock's Potential Biological Removal level. This level for the Gulf of Maine Harbor is 483.

Harbor porpoise *(Phocoena phocoena)* are among the smallest and shortest-lived marine mammals, seldom living more than ten years. Along the East Coast of North America, they can be found from Labrador to North Carolina. The southern-most stock is the Gulf of Maine/Bay of Fundy stock, though in the winter, some of these porpoises move south into the Mid-Atlantic. This stock (commonly called the Gulf of Maine stock) is believed to be composed of approximately 50,000 animals. Harbor porpoise spend their time in coastal waters where they prey on small schooling fish, including some fish that are sought by gillnet fishers. As a result, harbor porpoise become entangled in gillnets and drown.

Gillnets are typically used in the Northeast to catch groundfish such as cod and flounder, as well as small sharks. Harbor porpoise have been taken incidentally in gillnets since the 1960s, when a sink gillnet fishery for groundfish developed in the Bay of Fundy, Canada. The gillnet fisheries along the New England coast developed in the 1970s. NMFS estimates that New England and Mid-Atlantic gillnet fisheries now take approximately 2,000 harbor porpoises per year (1800 in the Gulf of Maine and 200 in the Mid-Atlantic).

Since gillnetting operations differ between the Gulf of Maine and Mid-Atlantic regions, two sets of measures under the HPTRP were devised. The Gulf of Maine portion of the plan pertains to all fishing with sink gillnets and other gillnets capable of catching multispecies in New England waters, from Maine through Rhode Island east of 72° 30' W longitude. The plan includes time and area closures for six areas in the Gulf of Maine, some of which are complete closures and others which are closures to multispecies gillnet fishing. During the majority of the closures, gillnetters may fish in those areas if they use sound-emitting devices called "pingers" on their gear. The Mid-Atlantic portion of the plan pertains to waters west of 72° 30' W longitude from New York to North Carolina. For the Mid-Atlantic, the HPTRP includes gear modifications and area closures, but not the use of pingers. The plan also includes some time and area closures in which gillnet fishing is prohibited regardless of the gear specifications.

In general, the HPTRP builds upon our knowledge of the behavior and distribution of the harbor porpoise to minimize the risk of their entanglement in the gillnets. The porpoises sense and respond to a range of sound frequencies, including that emitted by pingers. In scientific experiments in the Gulf of Maine, initiated by the gillnet industry and sponsored by NMFS, it was found that gillnets used with properly placed and operating pingers took far fewer harbor porpoises than nets without pingers. The new regulations require those who intend to fish using pingers to attend training and certification sessions on the use of the technology.

To ensure that the HPTRP's provisions are working as expected, NMFS will periodically review and report on the results of the measures taken to reduce harbor porpoise entanglement, the effect of pingers on other animals, and the status of the harbor porpoise stock.

For more information about the HPTRP, please contact Laurie Allen at (978) 281-9291 or Donna Wieting at (301) 713-2322.

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Marine Mammal Protection Act of 1972 Annual Report to Congress

- ○ January 1, 1997 - December 31, 1997 (sorry, out of print)
- ○ January 1, 1996 - December 31, 1996
- ○ January 1, 1994 - December 31, 1994
- ○ January 1, 1992 - December 31, 1993
- ○ January 1, 1990 - December 31, 1991

Office of Protected Resources Technical Memorandum Series:

- ○ Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop 1-2 April 1997, Silver Spring, Maryland. NMFS-OPR-13, 48 p. (January 1998)
- ○ Report of the Workshop to Assess Research and Other Needs and Opportunities Related to Humpback Whale Management in the Hawaiian Islands. NMFS-OPR-11, 134 p. (February 1997)
- ○ National Contingency Plan for Response to Unusual Marine Mammal Mortality Events. NMFS-OPR-9, 118 p. (September 1996)
- ○ Rescue, Rehabilitation, and Release of Marine Mammals: An Analysis of Current Views and Practices. NMFS-OPR-8, 65 p. (July 1996)
- ○ Coastal Stock(s) of Atlantic Bottlenose Dolphin: Status Review and Management. NMFS-OPR-4, 120 p. (October 1994)
- ○ Pinniped Forensic, Necropsy, and Tissue Collection Guide. NMFS-OPR-3, 80 p. (August 1994)
- ○ NMFS Observer Programs: Minutes and Recommendations of a Workshop Held in Galveston, TX Nov. 10-11, 1993. NMFS-OPR-1, 96 p. (July 1994)

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Reports and Other Office Publications:

- ○ Quantitative Behavioral Study of Bottlenose Dolphins in Swim-With-The Dolphin Programs in the United States. (April 1994)
- ○ Alaska Marine Mammal Tissue Archival Project: Specimen Inventory, NISTIR 5462, NIST. U.S. Dep. Commer., NOAA, National Ocean Service, and U.S. Dep. Commer., National Institute of Standards and Technology. (November 1994)
- ○ Report to Congress on Results of Feeding Wild Dolphins: 1989-1994. (July 1994)
- ○ Marine Mammal Strandings in the United States. Proceedings of the Second Marine Mammal Stranding Workshop, Miami, FL. December 3-5, 1987. U.S. Dep. Commer., NOAA. (January 1991)

ESA Reports/Recovery Plans:

- ○ Recovery Plan for the Blue Whale, *Balaenoptera musculus*. (July 1998)
- ○ Endangered Species Act Biennial Report to Congress: Status of Recovery Programs July, 1994 - September, 1996. (March 1997)
- ○ Recovery Plan for the Steller Sea Lion, *Eumetopias jubatus*. (December 1992)
- ○ Final Recovery Plan for the Northern Right Whale, *Eubalaena glacialis*. (December 1991)
- ○ Recovery Plan for the Hawaiian Monk Seal, *Monachus schauinslandi*. (March 1983)

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- ○ 4th Quarter 1998 **NEW!!!**
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- ○ September, 1994

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- ○ Marine Mammals of the Western Hemisphere *(24"x36")*
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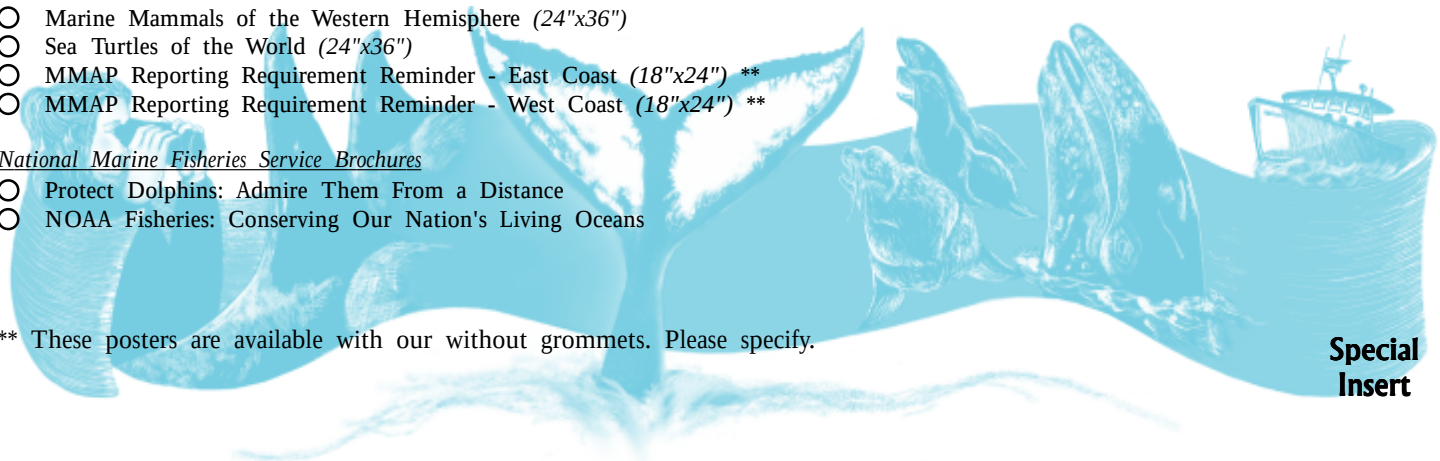

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From the Editors...

Since the passage of the MMPA, NMFS has forged numerous partnerships. Each day, NMFS staff cooperates with people in the United States and abroad including individuals from coastal states, conservation groups, the general public, other Federal agencies, the Marine Mammal Commission, and constituent groups including the scientific research community, the fishing industry, and the marine mammal public display community. This interdependency is pervasive in every aspect of marine mammal conservation and management, as well as in monitoring marine ecosystem health.

NMFS often relies on stakeholder participation on Scientific Review Groups and Take Reduction Teams. to determine the appropriate course of action to be taken in species management. For example, NMFS is currently working with the Alaska Beluga Whale Committee and the Cook Inlet Marine Mammal Council to conduct a status review of Cook Inlet beluga whales (see "NMFS To Conduct a Status Review of Cook Inlet Beluga Whales" on page 6). NMFS hopes that the outcome of this review will provide clarity on the uncertain status of this marine mammal stock. Without this necessary collaboration, NMFS might not be able to fully and successfully carry out its marine mammal conservation and protection mandates under the MMPA.

NMFS also forms working partnerships within NOAA. As reported on page 3, in "Marine Mammals Ashore CD-ROM," the Office of Protected Resources teamed with NOAA's National Ocean Service to asssist the National Aquarium in Baltimore in creating an important outreach and training tool for marine mammal stranding network participants.

Although NMFS has authority over marine mammals in U.S. waters, international partnerships can be crucial in species recovery. Specifically, the International Maritime Organization has recently adopted a mandatory ship reporting system to help prevent vessel collisions with critically endangered northern right whales (see "Mandatory Ship Reporting System and Other Right Whale Recovery Efforts" on page 1). The operation of this reporting system will surely shed light on right whale movement patterns and will assist NMFS and the shipping industry to devise new ways to detect and avoid large whales at sea.

The Office of Protected Resources looks forward to forging new relationships and strengthening old ones, as we work to develop more effective methods for conserving and monitoring marine mammals. NMFS believes that these partnerships increase the exchange of information that will benefit people and marine mammals alike.

The *MMPA Bulletin* Editorial Team.